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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Susumu Senshu

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10/19/2006

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EXAMINER

KLIMACH, PAULA W

ART UNIT

PAPER NUMBER

2135

DATE MAILED: 10/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/770,397	SENSHU, SUSUMU	
	<b>Examiner</b>	<b>Art Unit</b>	
	Paula W. Klimach	2135	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

This office action is in response to amendment filed on 07/18/06. The amendment filed on 07/18/06 have been entered and made of record. Therefore, presently pending claims are 1-25.

### ***Response to Arguments***

Applicant's arguments filed 07/18/06 have been fully considered but they are not persuasive because of following reasons.

Applicant argued that the system of Kaplan describes fingerprinting or watermarking a document when it is created to identify the source of the document. The applicant argued further that Kaplan describes that, when the user "buys" a document, a new fingerprint or watermark is added to the document, as it is decrypted to identify the purchaser. In contrast, claim 1 recites a method in which every time a recording operation of the digital data is performed new independent write identification information is generated. This is not found persuasive. However, the applicant's claim recites "...write identification information for each recording operation of the digital data..." and therefore the applicant's argument does not describe the claim correctly, since writing the identification every time a recording operation of the digital data is not the same as writing the identification information for each recording operation. In the reference of Kaplan the writing of the identification information is performed for each recording because each cryptolope contains identification information and a recording

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of the digital media. Therefore each time a cryptolope is bought, and the digital media is recorded, the identification information is written to the newly created and bought cryptolope.

As a result of the arguments provided above, the rejection to the claims are maintained.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-25** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al (6,301,663) in view of Ohba (5,668,945) and further in view of the article by Kaplan ("IBM Cryptolopes<sup>TM</sup>, SuperDistribution and Digital Rights Management").

*In reference to claims 1, 6, and 10*, Kato discloses a method and system for protecting against unauthorized copy of multimedia (abstract). The method comprises the steps of: Kato further discloses encrypting data identification information of the digital data (column 6 lines 20-24). The Disc key corresponds to the recording medium ID in encryption of data in the form of audio data, which contains the watermark (column 16 lines 15-20), which contains a master key (). The Disc key further corresponds to the medium ID since the key identifies the disk in that it is a key belonging to the disk. The watermark contains the master key (column 9 lines 44-47). Therefore the master key (write identification information) is encrypted by the disk key.

Although Kato discloses the use of a disk key (recording medium ID), Kato does not disclose obtaining a recording medium ID associated with the recording medium. Furthermore

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Kato does not disclose generating independent write identification information for each recording operation of the digital data. Although Kato discloses the use of a disk key to encrypt information, Kato does not disclose encrypting data identification information of the digital data and data control information by the use of the write identification information and encrypting the write identification information by use of the recording medium ID.

Ohba discloses a data security apparatus and method permits programmed data stored in a replaceable external storage medium to be processed by the data processor when it is determined that a security code is stored on the external storage medium and replacement second external storage medium is available (abstract). In the system disclosed by Ohba, there exists a disc ID (Fig. 2) and a means to detect and therefore obtain the ID (part 8 Fig. 3).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to have a disc ID and a method to obtain the disc ID. One of ordinary skill in the art would have been motivated to do this because the disc ID is useful information for controlling copy control information.

However Ohba does not disclose generating independent write identification information for each recording operation of the digital data; encrypting data identification information of the digital data and data control information by the use of the write identification information and encrypting the write identification information by use of the recording medium ID; and recording at least the encrypted data identification information and data control information to the recording medium.

Kaplan discloses generating independent write identification information for each recording operation of the digital data (Fingerprinting/watermarking instructions/specifications

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paragraph 4 page 4 and page 5 paragraph 1); the cryptolope can add individualized fingerprints and the identify the licensee or purchaser of each authorized or licensed copy. The cryptolope encrypts data identification information of the digital data and data control information (Fig. 1 Encrypted Fingerprint and watermark instructions) by use of the write identification information (master key). Kaplan further discloses recording at least the encrypted data identification information and data control information to the recording medium (SuperDistribution page 2).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to encrypt the encryption key as in the Cryptolopes of Kaplan in the system of Kato. One of ordinary skill in the art would have been motivated to do this because this means that royalty/licensing clearing centers do not have to maintain a database of all documents keys, instead, each clearing center maintains a small database of master keys.

*In reference to claims 2, 7, and 11*, wherein the digital data is encrypted by the data identification information, and the encrypted digital data is recorded to the recording medium along with the encrypted data identification information and data control information (column 7 lines 34-36).

*In reference to claims 3, 8, and 12*, wherein the data control information includes copy control information for the digital data (column 6 line 66 to column 7 line 1).

*In reference to claims 4, 9, and 13*, wherein the encrypted data identification information and data control information, and the write identification information (column 10 lines 48-52) are encrypted by the use of recording medium unique to the recording medium and recorded to the recording medium (column 6 lines 1-42).

*In reference to claims 5 and 14*, wherein a data processing unit for encrypting the data identification information and data control information and a data recording unit for recording data to the recording medium are mounted separately, and the write identification information is generated at the data recording unit, and the generated write identification information is encrypted and transmitted to the data processing unit (Fig. 1).

*In reference to claim 15, 19, and 22*, Kato discloses a method and system for protecting against unauthorized copy of multimedia (abstract) comprising the steps of: reproducing encrypted data identification information and write identification information, which are encrypted by the use of recording medium identification information from the recording medium (Fig. 2 part S13 in combination with column 5 lines 57-62); decrypting the encrypted data identification information and data by the use of the write identification information, and taking out the data identification information of the digital data and data control information (Fig. 2 part S13 and S16 in combination with column 7 line 66 to column 8 line 6).

Although Kato discloses recording the copy control and the encryption of the disc key, therefore the potential to store and encrypt the copy control, Kato does not expressly disclose encrypting data control information by the use of the write identification information.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to encrypt the copy control in the system of Kato. One of ordinary skill in the art would have been motivated to do this because encryption discourages fraud and increases the security of digital data.

Kato does not disclose obtaining a recording medium ID associated with the recording medium; and encrypting the write identification information by use of the recording medium ID.

Kaplan discloses a system that obtaining a master key to encrypt the keys of the cryptolope (page 3; Key records; paragraph 1). The master key corresponds to the recording medium id. The master key is obtained from the clearing center (page 4 paragraph 2). The identification information is encrypted using the recording medium ID (page 3; Key records; paragraph 1). The document keys correspond to the identification information; these are encrypted using the master key (recording medium ID). The master key is unique to the particular collection of documents (page 9 paragraph 1).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to encrypt the encryption key as in the Cryptolopes of Kaplan in the system of Kato. One of ordinary skill in the art would have been motivated to do this because this means that royalty/licensing clearing centers do not have to maintain a database of all documents keys, instead, each clearing center maintains a small database of master keys.

*In reference to claims 16, 20 and 23*, wherein the digital data is encrypted by the data identification information and recorded to the recording medium, and the encrypted digital data is reproduced from the recording medium along with the encrypted data identification information and data control information, and the write identification information (column 7 lines 34-36).

*In reference to claims 17, 21, and 24*, wherein the encrypted data identification information and data control information, and the write identification information (column 10 lines 48-52) are encrypted by the use of the recording medium identification information peculiar to the recording medium (column 6 lines 1-42) and recorded to the recording medium, and the recording medium identification information is reproduced from the recording medium, and the

data encrypted by the recording medium identification information are decrypted by the use of the recording medium identification information, and the encrypted data identification information and data control information, and the write identification information are taken out (Fig. 1).

*In reference to claim 18*, wherein a data processing unit for encrypting the data identification information and data control information and a data recording unit for recording data to the recording medium are mounted separately, and the write identification information is generated at the data recording unit, and the generated write identification information is encrypted and transmitted to the data processing unit (Fig. 1).

*In reference to claim 25*, wherein said generating step includes generating the write identification information with a random number generator (part 113 Fig. 10).

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

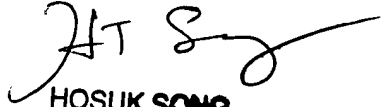
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paula W. Klimach whose telephone number is (571) 272-3854.

The examiner can normally be reached on Mon to Thr 9:30 a.m to 5:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PWK  
Monday, October 02, 2006

  
**HOSUK SONG**  
PRIMARY EXAMINER